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10/568,270	10/16/2006	Yajuan Wu	56815.1400	3304
30734 7590 06/17/2009 BAKER & HOSTETLER LLP WASHINGTON SQUARE, SUITE 1100 1050 CONNECTICUT AVE. N.W. WASHINGTON, DC 20036-5304				
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HUA, QUAN M				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/568,270

**Applicant(s)**

WU, YAJUAN

**Examiner**

QUAN M. HUA

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 5 and 6 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 2, 5 and 6 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 15 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/S6108)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1, 2, 5, and 6 are pending for examination. Claims 3-4 and 7-8 are canceled by Applicant's amendment.

***Response to Amendment***

2. Applicant's amendment has been entered.
3. Withdrawal of rejection under 35 U.S.C. 112 second paragraph applied to Claims 1, 2 and 5 are made in light of Applicant amendment.
4. Objection made to Claim 2 is withdrawn in light of Applicant's amendment.

***Claim Rejections - 35 USC § 103***

5. Claims 1, 2, 5 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over 3GPP Release 1999 - TS 29.060 v3.7.0 (2000-12) by 3GPP Release 1999 Organizational Partners, hereafter 3GPP Release 1999 in view of 3GPP- TS 09.60 V6.10.1 (Release 1997), here after E3GPP RELEASE 1997.

**As to Claim 1:**

*A method for processing Create Packet Data Protocol (PDP) Context Request, comprising:*

*1) storing Cause values of different versions as well as definitions for all the Cause values in a GSN (GPRS Support Node) receiving Create PDP Context Request messages;*

Regarding the limitation above, see at least 3GPP Release 1999, Page 19, Section 7.3.2, and Lines 1 – 22. *“the GSN (GPRS Support Node) receiving Create PDP Context Request messages”* read as “GGSN”. Since the receiving node GGSN responds to the sending node SGSN with a message containing a Cause value, it is obvious to one of ordinary skill in the art that a list of predetermined Cause values have been stored in the receiving node GGSN prior to receiving the Create PDP Context Request Message.

*2) after receiving the Create PDP Context Request, the GSN checking a version number, performing internal processing, and filling a Cause value of the identical version in Create PDP Context Response according to a processing result of the internal processing and the version number of the Create PDP Context Request;*

Regarding the limitation *“after receiving the Create PDP Context Request, the GSN checking the version number”*, see at least 3GPP Release 1999, Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6. As GTP Header contains a field indicating the version number, it is obvious to one of ordinary skill in the art, at the time the invention is made, that the receiving node GGSN has mechanism used for checking version number.

Regarding the limitation “performing internal processing”, see at least 3GPP Release 1999, page 19, section 7.3.2, Lines 23-26 which discloses the receiving node doing analysis to determine which Cause value to fill in order to reflect the current resource status at the receiving node. Such step is an example of internal processing.

Regarding the limitation *"filling a Cause value of the identical version in Create PDP Context Response according to the processing result and the version number of the Create PDP Context Request"*. See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 1-26. See Lines 4-5 in the same section for the limitation *"according to processing result"*. See also Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6. As the version number of the message is to be determined by the receiving node, it is obvious to one of ordinary skill in the art, at the time the invention is made, that the receiving node is to response with cause values as listed in page 19, section 7.3.2, Lines 1-26 that are appropriated with the determined version.

3) *Encapsulating the Create PDP Context Response, and returning it to the sender of the Create PDP Context Request.*

Regarding this limitation, see 3GPP Release 1999, page 19, section 7.5.2, Lines 1-3. "SGSN" read as "the sender". As to the limitation, "encapsulating the Create PDP context response", it is obvious to one of ordinary skill in the art that a message in a communication network is to be encapsulated in appropriate format in order to be sent to destinations.

, wherein the Step 2) comprises:

- 2A) *the GSN receiving the Create PDP Context Request message;*  
See 3GPP RELEASE 1999, Page 19, Section 7.3.2, and Lines 1.

- *2B) the GSN performing internal processing and getting the processing result; see at least 3GPP Release 1999, page 19, section 7.3.2, Lines 23-26 which discloses the receiving node does analysis to determine which Cause value to fill in order to reflect the current status. Such step is an example of internal processing.*
- *2C) if the processing result is that the GSN has created a PDP context successfully, the Cause value is set as "Request Accepted"; See 3GPP RELEASE 1999, Page 19, Section 7.3.2, Lines 4-5.*
- *2D) if the processing result is that the GSN fails to create a PDP context because no free dynamic PDP address is available, reading the Create PDP Context Request message and checking the version number of the message according to the message header thereof, if it is the GTPv1 version, the Cause value is set as "All dynamic PDP addresses are occupied"; otherwise, it is the GTPv0 version, and the Cause value is set as "No resources available",*  
*See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 1-26. Regarding "reading the Create PDP Context Request message and checking the version number of the message according to the message header" see also Page 12, Section 6 -*

GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6.

Regarding limitation “, *if it is the GTPv1 version, the Cause value is set as “All dynamic PDP addresses are occupied”*”, see at least 3GPP Release 1999, page 19, section 7.3.2, Lines 4-5, and Line 8. While the Cause Value “No resources available” also referred to the lack of unoccupied PDP addresses, however, 3GPP Release 1999 also recites a specific Cause Value of “All dynamic PDP addresses are occupied” to reflect that all dynamic PDP addresses are occupied. Thus it is obvious to one of ordinary skill in the art that using the cause value “All dynamic PDP addresses are occupied” will accurately reflect the status at the receiving node, as opposed to the general statement of “No resources available”.

Regarding limitation “*otherwise, it is the GTPv0 version, and the Cause value is set as “No resources available.”*” See at least 3GPP Release 1999, Page 76, Section 11.1.1, Lines 5-6. 3GPP Release 1999 does not specifically recites possible cause values from GTPv0. However 3GPP Release 1997 discloses a list of possible cause values, which contains Cause Value “No resources available” but does not have “All dynamic PDP addresses are occupied”, See 3GPP Release 1997, Page 17, Section 7.5.2, Lines

6-16. Since GTPv0 is to be used whenever the incoming message of the same version is in GTPv0, a response of "No resources available" is to be generated when no PDP addresses are available. Both 3GPP Release 1999 and Release 1997 teaches communication between GSN nodes, thus it would have been obvious to one of ordinary skill in the art to combine the cited disclosures as GTPv0 is known to one of ordinary skill in the art at the time 3GPP Release 1999 is made.

*2E) if the processing result is that the GSN fails to create a PDP context because there is no enough memory available, reading the Create PDP Context Request message and checking the version number of the message according to the message header thereof, if it is the GTPv1 version, the Cause value is set as "No memory is available"; otherwise, it is the GTPv0 version, and the Cause value is set as "No resources available";*

See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 1-26 and, regarding "reading the Create PDP Context Request message and checking the version number of the message according to the message header" see also Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6.



As to the limitation *if it is the GTPv1 version, the Cause value is set as "No memory is available"*, see at least 3GPP Release 1999, page 19, section 7.3.2, Lines 4-5, and Line 9. While the Cause Value "No resources available" also referred to the unavailability of memory, however, 3GPP Release 1999 also recites a specific Cause Value of "No memory available" to reflect that the status of having no memory available. Thus it is obvious to one of ordinary skill in the art that using the cause value "No memory available" will accurately reflect the status of the receiving node, as opposed to the general statement of "No resources available".

Regarding limitation *"otherwise, it is the GTPv0 version, and the Cause value is set as "No resources available."* See at least 3GPP Release 1999, Page 76, Section 11.1.1, Lines 5-6. 3GPP Release 1999 does not specifically recites possible cause values of GTPv0. However 3GPP Release 1997 discloses a list of possible cause values, which contains Cause Value "No resources available" but does not have "No memory available", see 3GPP Release 1997, Page 17, Section 7.5.2, Lines 6-16. Since GTPv0 is to be used whenever the incoming message of the same version is in GTPv0, a response of "No resources available" is to be generated when no PDP addresses are available. Both 3GPP

Release 1999 and Release 1997 teaches communication between GSN nodes, thus it would have been obvious to one of ordinary skill in the art to combine the cited disclosures as GTPv0 is known to one of ordinary skill in the art at the time 3GPP Release 1999 is made.

- *2F) if the processing result is that the GSN fails to create a PDP context due to reasons other than the above, checking the version number and setting the Cause value according to the existing descriptions in the specifications of the GTPv0 or GTPv1 version.*

See at least 3GPP Release 1999, page 19, section 7.3.2, Lines 1-26 and, regarding "reading the Create PDP Context Request message and checking the version number of the message according to the message header" see also Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6.

**As to Claim 2:**

- *The processing method according to claim 1, wherein the different versions comprise the **GTPv0 version** and **GTPv1 version**; see at least 3GPP Release 1999, Page 12, Section 6 - GTP Header, Lines 12-16 and further Page 76, Section 11.1.1, Lines 5-6.*

- *and the definition for Cause values in the GTPv1 version includes at least the following descriptions:*

*a) "All dynamic PDP addresses are occupied" indicates that no free dynamic PDP address is available in the GSN which can be allocated to the UE (User Equipment) initiating an activation;*

*See at least 3GPP Release 1999, Page 19, and Lines 8.*

*b) "No memory is available" indicates that no enough memory is available in the GSN to support the activation; See at least 3GPP Release 1999, Page 19, Lines 9.*

*c) "No resources available" indicates that some kinds of resources have been used up temporarily and the activation can not be supported. See at least 3GPP Release 1999, Page 19, Lines 7 and Line 23-24.*

**As to Claim 5:**

*The processing method according to claim 1, wherein the GSN comprises a Gateway GPRS Supporting Node (GGSN) or a Serving GPRS Support Node (SGSN).*

*See 3GPP Release 1999, Page 19, Line 1.*

**As to Claim 6:**

*The processing method according to claim 2 wherein the GSN comprises a Gateway GPRS Supporting Node (GGSN) or a Serving GPRS Support Node (SGSN).*

See 3GPP Release 1999, Page 19, Line 1.

***Response to Arguments***

6. Applicant's Remarks/Arguments in amendment has been fully considered.
7. In Remarks, pages 5 to 6, Applicant point out that steps 2D and 2E in the former claim 4 now part of amended claim 1 being distinguished from cited prior art. Applicant submitted that:

*"only in the case of "the processing result is that the GSN fails to create a PDP context because no free dynamic PDP address is available" or "the GSN fails to create a PDP context because there is no enough memory available", the step of checking the version number of the message is needed."*

and

*"if the processing result is that the GSN fails to create a PDP context because no free dynamic PDP address is available, reading the Create PDP Context Request message and checking the version number of the message according to a message header thereof." (Page 6)*

Applicant essentially claims that the step of reading and checking the version number happen only if the processing result yield a specified result, thus distinguished from prior art cited due to the exclusive condition of "only if". The examiner respectfully disagrees. The claim language in both original and amended claims set does not in anyway

suggest such step to be done in such exclusive condition. The claim language recites "if..." but not "only if...", thus do not exclusively restrict the step of checking version to when a certain processing result is yielded. Cited prior art 3GPP1999 disclosed the version field is an always-present field in header of the message, thus it is read no matter what, including when a GSN node fails to create a PDP context due any of the above condition. Thus the argument is found not persuasive.

Furthermore, if the Applicant implies that the step of checking version number is done only after the internal processing is done ("if the processing result is...., reading and checking"), the examiner would like to point out to Applicant that how would the receiving GSN node perform processing the Context Request message without reading the version number prior first. In other words, how a receiving GSN node can perform read and process the request to yield a result without knowing which version it is dealing with. This implication is also in contrast with Claim 1, which recites "the GSN checking a version, performing internal processing...", which implies the receiving node has to figure out which version the message is before it performs processing.

Yet furthermore, granted the Applicant implies that the steps of reading and version checking recited in steps 2D) and 2E) are to be done again after the initial check in the header. The Examiner would like to point out that anyone skilled in the art would be able to contemplate such steps without exerting any inventive efforts as doing repetitively the reading and version checking step will give the same and predictable result and do not carry patentable weight.

Applicant further argue that cited prior art 3GPP 1999 failed to disclose how to use Cause Values. Specifically, it does not indicate that the Cause value is set as "All dynamic PDP addresses are occupied" if the processing result is that the GSN fails to create a PDP context because no free dynamic PDP address is available and that it is determined that the version is the GTPv1 version. Similarly, 3GPP 1999 does not disclose how to use the Cause value of "No resources available. Similar arguments are made in subsequent paragraphs of page 7. Examiner respectfully disagree and would like to point out that 3GPP 1999 and 3GPP 1997 disclose cause values at issued and their usage through their description as in previously cited prior art portion and as admitted by Applicant in remarks. Thus it would be obvious to one of ordinary skill in the art at the time the invention was made to use replace general response such as "no resource available" with more descriptive response message such as "All dynamic PDP addresses are occupied". As cited art does teach descriptions of cause values at disputes, one of ordinary skilled in the art would be motivated to made modification according to disclosed description. Regarding Applicant's concern of 3GPP 1997, the examiner submits that the incorporation of 3GPP 1997 is to support features not directly/expressively but maybe referred indirectly. 3GPP1997, as a secondary reference, thus is not required to teach every single one of the above limitation.

Applicant submitted that claimed invention is more effective as GSNs would not need to check the version number of the message in all cases. The examiner would like to point out that version numbers are typically located in header portion of header request message so as the receiving nodes can determine how do deal with it prior to

the step of processing. Processing the message even before knowing which version the GSN is to deal with would cause compatibility/stability issue. Moreover and importantly, his implication is also in contrast with Claim 1, which recites "the GSN checking a version, performing internal processing...", also Paragraphs [0067, 0099, 0100, 0105], which implies the receiving node has to figure out which version the message is before it perform processing.

In light of the above, the examiner holds arguments presented not persuasive, thus claim 1 and dependent claims 2, 5 and 6 are rejected with the reasoning above.

#### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUAN M. HUA whose telephone number is (571)270-

7232. The examiner can normally be reached on Monday through Friday - 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571)-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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